

California Influenza and Respiratory Disease Surveillance for Week 5 (January 30-February 5, 2011)

Note: This report includes data from many different sources of influenza surveillance, including syndromic surveillance, laboratory surveillance, voluntary case-based reporting of severely ill cases and mandatory reporting of influenza deaths for cases ages 0-17 years. The information contained in this report should be viewed as a “snapshot” of influenza activity for each surveillance week, and should not be considered as population-based data or representative of all California jurisdictions.

Overall influenza activity in California for Week 5 remains “regional.”*

Influenza and Other Respiratory Disease Highlights (Week 5)

- With 79 sentinel providers reporting Week 5 data so far, influenza-like illness (ILI) activity decreased by 2.1% in Week 5 compared to the previous week. The ILI activity in California for Week 5 remained “low.”**
- Of 229 specimens tested by polymerase chain reaction (PCR) statewide by the Respiratory Laboratory Network (RLN) during Week 5, 88 (38.4%) were positive for influenza; of these 56 (63.6%) were influenza A and 32 (36.4%) were influenza B. Of the 55 influenza A specimens that have been subtyped, 25 (45.5%) were subtyped as A (H3) and 30 (54.5%) were subtyped as A (2009 H1N1).
- The percentage of influenza detections in sentinel laboratories increased during Week 5; 597 (20.6%) of 2,903 specimens tested were positive compared to 472 (16.3%) of 2,903 specimens tested during the previous week.
- Of 14 influenza A (2009 H1N1) specimens and 41 influenza A (H3N2) specimens tested by the CDPH Viral and Rickettsial Disease Laboratory (CDPH-VRDL), no neuraminidase-inhibitor resistance has been found.
- During Week 5, the proportion of specimens tested statewide by RLN and sentinel laboratories that were positive for respiratory syncytial virus (RSV) decreased; 865 (30.6%) of 2,827 specimens tested were positive, compared to 927 (32.6%) of 2,846 specimens tested during the previous week.

*Regional activity is defined by the CDC as “outbreaks of influenza or increases in influenza-like illness (ILI) and recent laboratory-confirmed influenza in at least two but less than half the regions of the state with recent laboratory evidence of influenza in those regions.”

**Activity levels range from minimal to high and are based on the percent of outpatient visits due to ILI compared to the average percent of ILI visits that occur during spring and fall weeks with little or no influenza virus circulation.

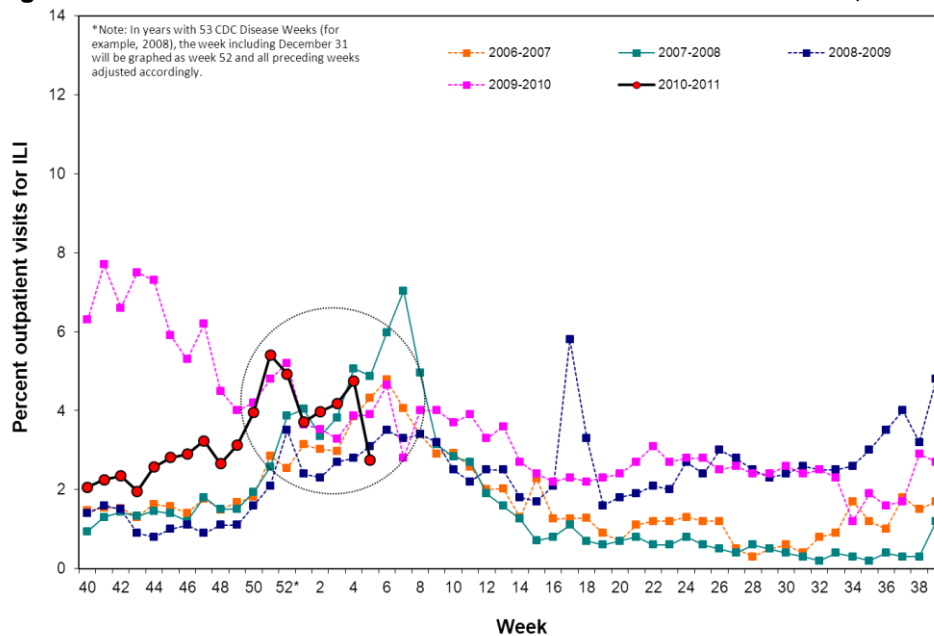
A. Syndromic Surveillance

1. CDC Influenza Sentinel Providers

Sentinel providers report the number of outpatient visits for ILI and the total number of visits per week. These data are reported weekly as a percentage of total visits due to ILI. The ILI case definition is fever (temperature of 100°F [37.8°C] or greater) and a cough and/or a sore throat in the absence of a known cause other than influenza.

The percentage of ILI visits decreased during Week 5 (2.7%) compared to the previous week (4.8%). A total of 79 sentinel providers reported data in Week 5 compared to an average of 123 providers reporting in prior weeks. Some ILI visits during recent weeks may not yet be reported.

Figure 1. California Sentinel Providers – Influenza-Like Illness Visits, 2006-2011



B. Laboratory Update

1. Respiratory Laboratory Network (RLN) Surveillance Results

The RLN is composed of 28 local public health laboratories that offer PCR testing for influenza A and B and testing using the R-mix shell vial culture system to identify five other common respiratory viruses (RSV, adenovirus, and parainfluenza virus type 1-3).

The percentage of specimens that tested positive for influenza decreased in Week 5 (38.4%) compared to Week 4 (47.2%). Of 229 specimens tested by the RLN during Week 5, 56 (24.5%) were positive for influenza A, including 25 (44.6%) influenza A (H3), 30 (53.6%) influenza A (2009 H1N1), and 1 (1.8%) influenza A pending subtyping. An additional 32 (14.0%) specimens were positive for influenza B (Table 1).

Table 1. Respiratory Laboratory Network (RLN) Surveillance Results from Selected Laboratories*, January 30–February 5, 2011

	Total RLN*	Northern CA	Central CA	Southern CA
	No. (%)	No. (%)	No. (%)	No. (%)
Number of specimens tested by PCR	229	65	28	136
Influenza A	56 (24.5) [†]	23 (35.4) [†]	9 (32.1) [†]	24 (17.6) [†]
A (seasonal H1N1)	0 (0.0) [‡]	0 (0.0)	0 (0.0)	0 (0.0)
A (H3)	25 (44.6) [‡]	10 (43.5) [‡]	2 (22.2) [‡]	13 (54.2) [‡]
A (2009 H1N1)	30 (53.6) [‡]	13 (56.5) [‡]	6 (66.7) [‡]	11 (45.8) [‡]
A (subtyping pending)	1 (1.8) [‡]	0 (0.0)	1 (11.1) [‡]	0 (0.0)
Influenza B	32 (14.0) [†]	3 (4.6) [†]	1 (3.6)	28 (20.6) [†]
Number of specimens tested by R-mix	32	0	23	9
RSV	5 (15.6) [¶]	0 (0.0)	5 (21.7) [¶]	0 (0.0)
Other respiratory viruses	2 (6.3) ^{¶,††}	0 (0.0)	1 (4.3) [¶]	1 (11.1) [¶]

* RLN labs reporting Week 5 data, by region:

Northern CA: Contra Costa, Humboldt, Placer, Sacramento, San Francisco, Santa Clara, Shasta, Sonoma

Central CA: Fresno, Monterey, San Joaquin, Tulare

Southern CA: Long Beach, Los Angeles, San Diego, San Luis Obispo, Santa Barbara

† Percent of total specimens tested for influenza by PCR

‡ Percent of influenza A positives

¶ Percent of total specimens tested by R-mix

†† Adenovirus (1), parainfluenza type 3 (1)

2. Sentinel Laboratory Surveillance Results

Sentinel laboratories are a network of clinical, commercial, academic, and hospital laboratories located throughout California that provide weekly data on the number of laboratory-confirmed influenza and other respiratory virus detections and isolations.

Table 2 shows positive influenza and RSV results reported from sentinel laboratories during Week 5. The percentage of specimens that tested positive for influenza increased in Week 5 (597 of 2,903; 20.6%) compared to the previous week (472 of 2,903; 16.3%). Of the 2,903 specimens tested, 388 (13.4%) were positive for influenza A and 209 (7.2%) were positive for influenza B. Of 2,795 specimens tested for RSV during Week 5, 860 (30.8%) were positive. This was a slight decrease from the previous week, when 921 (32.6%) of 2,825 specimens tested positive for RSV.

Table 2. Influenza and other respiratory virus detections from Sentinel Laboratories, January 30–February 5, 2011

	No. (%)
Number of sites reporting	75
Total specimens tested for influenza	2,903
Influenza A	388 (13.4)*
Influenza B	209 (7.2)†
Total specimens tested for RSV	2,795
RSV	860 (30.8)‡

Total number of positive lab results reported, by local health jurisdiction of patient's residence and/or site location:

* Alameda (58), Contra Costa (33), Fresno (13), Imperial (15), Long Beach (19), Los Angeles (36), Madera (1), Marin (6), Napa (2), Orange (7), Placer (9), Riverside (2), Sacramento (18), San Bernardino (3), San Diego (18), San Francisco (33), San Joaquin (4), San Mateo (22), Santa Clara (51), Solano (11), Sonoma (15), Stanislaus (11), Tulare (1)

† Alameda (28), Butte (1), Contra Costa (10), Fresno (7), Kern (3), Long Beach (9), Los Angeles (43), Madera (1), Marin (1), Merced (3), Orange (4), Placer (1), Riverside (6), Sacramento (16), San Bernardino (1), San Diego (7), San Francisco (10), San Joaquin (3), San Mateo (11), Santa Clara (30), Solano (7), Sonoma (5), Stanislaus (1), Yolo (1)

‡ Alameda (82), Contra Costa (35), Fresno (105), Imperial (25), Kern (8), Kings (11), Long Beach (65), Los Angeles (60), Madera (11), Marin (5), Merced (2), Napa (1), Orange (9), Placer (27), Riverside (24), Sacramento (91), San Bernardino (8), San Diego (45), San Francisco (21), San Joaquin (22), San Mateo (24), Santa Clara (84), Solano (36), Sonoma (20), Stanislaus (23), Tulare (14), Tuolumne (1), Yolo (1)

Figures 2 through 4 summarize the combined laboratory data from both the RLN and the sentinel laboratories. Figure 2 shows that influenza detections increased in Week 5 (21.9%) compared to the previous week (17.6%), continuing an upward trend that began in Week 49 (December 5–11, 2010). Of the samples tested during Week 5, 14.4% were influenza A and 7.8% were influenza B (Figure 3). Figure 4 shows that the percentage of RSV detections continues a downward trend that began in Week 1 (January 2–8, 2011).

Figure 2. Influenza detections in Respiratory Laboratory Network and Sentinel Laboratories, 2006-2011

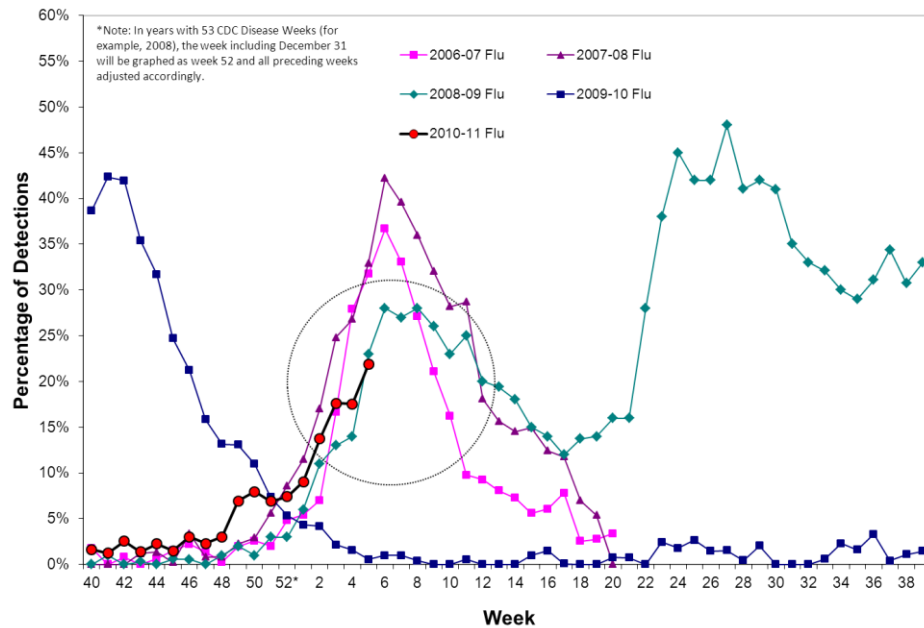


Figure 3. Influenza detections in Respiratory Laboratory Network and Sentinel Laboratories, by Influenza Type

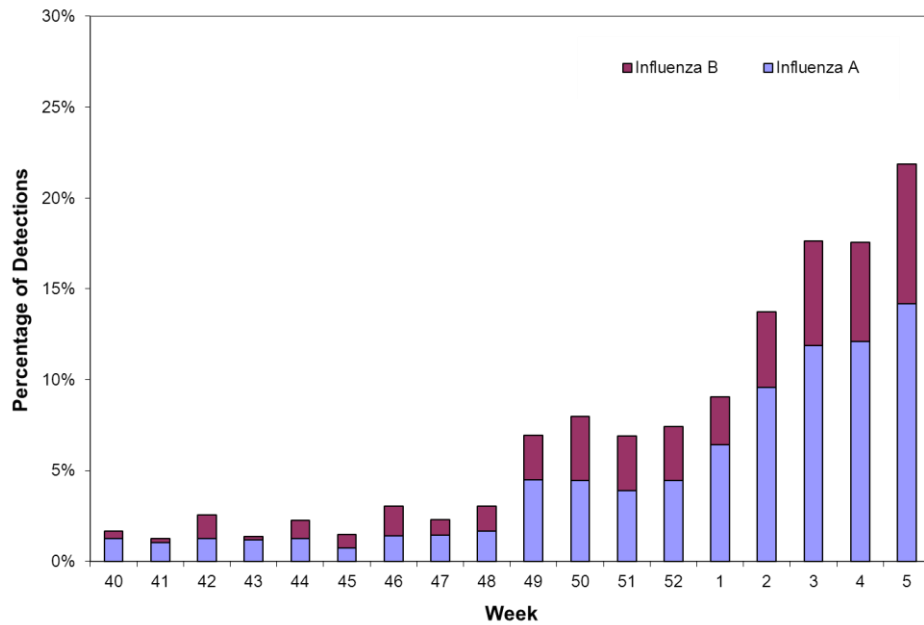
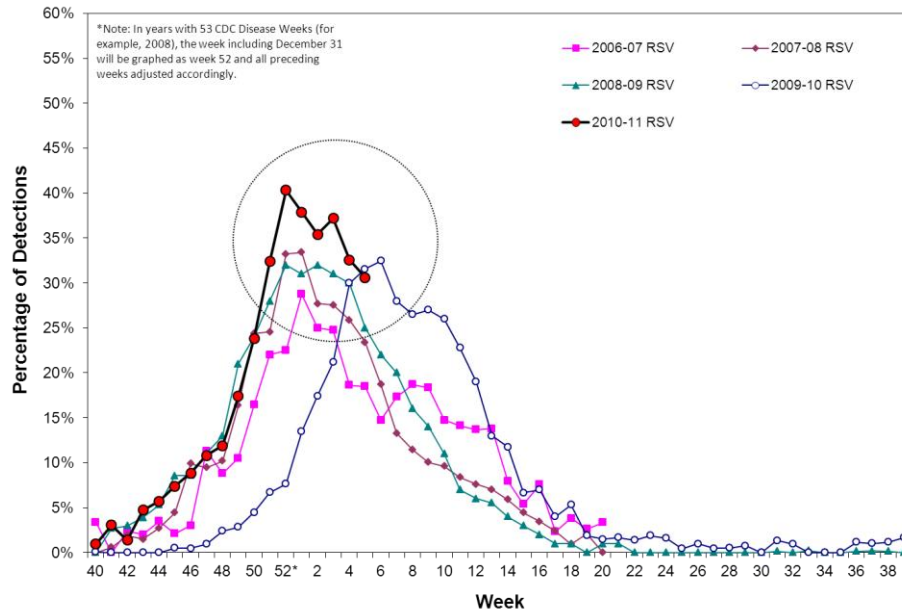


Figure 4. RSV detections in Respiratory Laboratory Network and Sentinel Laboratories, 2006-2011



For questions regarding this report or influenza surveillance and reporting in California, please email InfluenzaSurveillance@cdph.ca.gov. This account is monitored daily by several epidemiologists.

To obtain additional information regarding influenza, please visit the CDPH influenza website at [http://www.cdph.ca.gov/HealthInfo/discond/Pages/Influenza\(Flu\).aspx](http://www.cdph.ca.gov/HealthInfo/discond/Pages/Influenza(Flu).aspx).

A copy of the case report form for reporting any laboratory-confirmed influenza case that was either admitted to the ICU or died can be downloaded from <http://cdphinternet/programs/immunize/Documents/SevereInfluenzaCaseHistoryForm.pdf>.